

### **Financial Innovation**

- innovation is the result of search for profits
- as a result of changes in demand and supply
- Response to changes in demand
  - major change is the huge increase in interestrate risk starting in the 1960s
  - examples of financial innovation:
    - adjustable-rate mortgages
    - financial derivatives

### Financial Innovation (cont.)

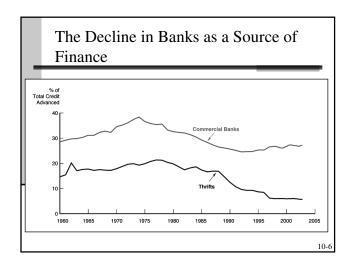
- Response to changes in supply
  - the major change is computer technology:
    - increases the ability to collect information
    - lowers transaction costs
  - examples of financial innovation:
    - bank credit and debit cards
    - electronic banking facilities (ATMs, home banking, virtual banks)
    - junk bonds
    - commercial paper (= short term debt security issued by banks and large corporations) market
    - securitization = transforming illiquid financial assets (e.g., mortgages) into marketable securities

10-4

### Avoidance of Existing Regulations (Loophole Mining)

- Regulations behind financial innovation
  - reserve requirements act as a tax on deposits equal to i × r
  - deposit-rate ceilings (Regulation Q)
  - as *i* ↑, loophole mine to escape the reserve requirement tax and deposit-rate ceilings
- Examples
  - money market mutual funds (shares redeemable by issuing checks)
  - sweep accounts (balances above a certain sum in corporate checking accounts are moved into another interest-bearing account)

0-5



### Decline in Traditional Banking

- Loss of cost advantages in acquiring funds (liabilities):
  - $\pi \uparrow$  at the end of 1960s led to  $i \uparrow$ , then disintermediation because:
    - deposit rate ceilings and regulation Q
    - money market mutual funds
    - foreign banks have cheaper source of funds
- Loss of income advantages on uses of funds (assets)
  - easier to use securities markets to raise funds: commercial paper, junk bonds, securitization
  - finance companies more important because easier for them to raise funds

#### Decline in Traditional Banking (cont.)

- Banks' response
  - loss of cost advantages in raising funds and of income advantages in making loans causes a reduction in profitability in traditional banking
  - banks switched to other profit-generating activities:
    - expand lending into riskier areas: e.g., real estate or corporate takeovers
    - expand into off-balance sheet activities
  - this creates problems for U.S. regulatory system
  - the banking industry in other countries experienced similar problems

# Structure of the Commercial Banking Industry

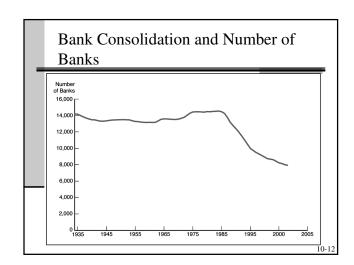
Assets	Number of Banks	Share of Banks (%)	Share of Assets Held (%)
ess than \$25 million	796	10.0	0.2
\$25–\$50 million	1,421	17.9	0.8
\$50-\$100 million	2,068	26.1	2.2
\$100-\$500 million	2,868	36.2	8.6
\$500 million-\$1 billion	381	4.8	3.7
\$1-\$10 billion	319	4.0	13.2
More than \$10 billion	80	1.0	71.3
Total	7,933	100.0	100.0

10-9

Ten Largest U.S. Banks Table 2 Ten Largest U.S. Banks, February 2003 Share of All Commercial Assets (\$ millions) Bank Bank Assets (%) 1. Citibank, National Association, New York 1,057,657 Lithbank, National Association, New York
JP Morgan Chase, New York
Bank of America, National Association,
Charlotte, N.C.
Wachovia National Bank, Charlotte, N.C.
Wells Fargo, National Association, 619,921 319,853 8.90 4.59 Weils rargo, vational association,
San Francisco
Bank One, National Association, Chicago
Taunus Corporation, New York
Fleet National Bank, Providence, R.I.
ABN Amro, North America, Chicago
Us Bancorp, Minneapolis, Minnesota 311,509 262,947 235,867 192,032 174,451 164,745 4,051,490 2.76 2.50

### **Branching Regulations**

- McFadden Act and Douglas Amendment
  - prohibit banks from branching across state lines
  - national banks have to obey the regulations in the state of their location
- Response to branching restrictions
  - bank holding companies (BHCs)
    - allowed purchases of banks outside state
    - allowed a wider scope of activities by the Fed
    - the dominant form of corporate structure for banks
  - Automated Teller Machines not considered branch of the bank, so networks allowed



### Bank Consolidation and Nationwide Banking

- Bank Consolidation
  - branching restrictions weakened
  - development of super-regional banks
- Riegle-Neal Act of 1994
  - allows full interstate branching (except Texas)
  - promotes further consolidation (banks can merge across state borders)
- Future of industry structure
  - will probably become more like in the other countries, but not quite: still several thousand banks, rather than several hundred

Bank Consolidation: A Good Thing?

- Cons
  - fear of decline of small banks and small business lending
  - rush to consolidation may increase risk taking
- Pros
  - community banks will survive
  - increase competition
  - increased diversification of bank loan portfolios: lessens likelihood of failures

10-14

## Separation of Banking and Other Financial Service Industries

- Glass-Steagall Act of 1933
  - allows banks to underwrite (buy) government securities, but prevents them from buying corporate securities or engage in brokerage
  - banks are also prohibited from engaging in real estate or insurance activities
- Erosion of Glass-Steagall
  - brokerage companies engage in banking activities
  - Fed, OCC, FDIC, allow banks to engage in underwriting activities (from 1987 on)

### Separation of Banking and Other Financial Service Industries (cont.)

- Gramm-Leach-Bliley Financial Modernization Services Act of 1999 — repeal of Glass-Steagall
  - allows securities firms and insurance companies to purchase banks
  - banks are allowed to underwrite insurance and engage in real estate activities
  - OCC regulates bank subsidiaries engaged in securities underwriting
  - Fed oversees bank holding companies under which all real estate, insurance and large securities operations are housed
  - implication: banking institutions become larger and more complex

10-16

### Savings and Loan Associations

- Regulators
  - Office of Thrift Supervision
  - Federal Home Loan Bank System (FHLBS)
  - FDIC's Saving Association Insurance Fund (SAIF)
  - state banking authorities
- Structure
  - fewer restrictions on branching

10-17

### Mutual Savings Banks

- Regulators
  - FDIC
  - states
- Structure
  - 400 or so
  - within-state branching regulations not restrictive, so there are few small MSBs

10-18

### **Credit Unions**

- Regulators
  - National Credit Union Administration (NCUA)
  - states
- Structure
  - because must have common bond of depositors, most are small with deposits less than \$10 million

### **International Banking**

- Reasons for rapid growth
  - rapid growth of international trade and multinational corporations
  - banks abroad can pursue activities not allowed in home country
  - tap into Eurodollar market

10-2

#### U.S. Banks Overseas

- Regulators
  - Federal Reserve (regulation K)
- Structure
  - Edge Act Corporations = special subsidiaries engaging in international banking
  - International Banking Facilities = deposits and loans only with foreigners

Foreign Banks in U.S.

- same as for U.S. domestic banks
- Structure

■ Regulators

- approximately 500 offices in U.S.
- about 20% of total U.S. bank assets

10-22

10-21

### Ten Largest Banks in the World

#### Table 3 Ten Largest Banks in the World, 2002 Assets (U.S. \$ millions) Bank 1. Mizuho Holdings, Japan 1,281,389 1,057,657 2. Citigroup, U.S. Mitsubishi Tokyo Financial Group, Japan 4. Deutsche Bank, Germany 815,126 5. Allianz, Germany 805,433 6. UBS, Switzerland 7. BNP, France 753.833 734,833 8. HSBC Holdings, U.K. 694,590 9. J.P. Morgan & Chase Company, U.S. 10. Bayerische Hypo-Und Vereinsbanken, Germany 638,544 Source: American Banker, 167 (132): 17, July 12, 2002.